Vermont Department of Health



WIC MIS/EBT EBT Feasibility Study and Cost-Benefit Analysis

Version 1.8

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EBT Feasibility Study and Cost-Benefit Analysis

1. Purpose

This feasibility study and cost benefit analysis is a preliminary study to evaluate alternative approaches to implementing an Electronic Benefit Transfer (EBT) system for the Vermont WIC program, and determine whether the solutions identified are technically, financially, and operationally viable. This study also identifies the approaches we believe most cost effectively meet the program objectives of improved effectiveness and efficiency of operation and administration.

The feasibility study uses the US Department of Agriculture Food and Nutrition Service (USDA/FNS) Functional Requirements Document (FReD) and the Vermont WIC FReD as a baseline to assess the ability of various alternative approaches to meet defined requirements. The cost benefit analysis uses the approach identified by FNS for evaluating the financial feasibility of the systems.

2. Overview of WIC EBT

Currently Vermont WIC nutritionists and certification staff verify eligibility of WIC applicants and issue food benefits that direct home delivery vendors to deliver specific foods, at specific times during the month, to the certified participants. Participants validate delivery of the foods, after which the home delivery vendor is reimbursed using a contractually defined cost formula. Vermont is the only state using this home delivery system for WIC foods. In most other states, the Food Instruments (FIs) issued to WIC participants are negotiable vouchers, checks or coupons used to purchase foods in authorized retail stores (grocery, pharmacy, commissary).

In 2010, the US Congress mandated WIC EBT implementation nationwide by 2020. EBT uses electronic payment and card technologies to support the issuance of food benefits and the processing and settlement of WIC benefit transactions. Thus, VT WIC must move from a home delivery to retail delivery model for Vermont WIC, and we are faced with a choice: temporarily adopt the paper FIs still used in most states, or proceed directly to implementation of an Electronic Benefits Transfer (EBT) solution.

Federal and state governments have been issuing benefits via EBT for many income support programs for decades. SNAP (Supplemental Nutrition Assistance Program, formerly Food Stamps) EBT was mandated by Congress and has operated nationwide since the late 1990s. Many states, including Vermont, also use EBT to facilitate cash payments to beneficiaries, including child care, child support transfers and/or other family support payments.

Unlike SNAP and other cash support programs, however, WIC benefits are not associated with a specific dollar amount (e.g. \$150/month) but are provided in the form of a defined food package or food prescription (e.g. 2 gal low-fat milk). All foods authorized by the state are listed on the state's Approved Products List (APL), and the participant may purchase only APL-listed food items specified in the participant's assigned food package. The FI (whether it be a paper instrument or a stored value in the EBT system) lists the specific items and quantities determined for that participant at the WIC clinic. Furthermore, as a cost control measure, each state establishes a Not-to-Exceed (NTE) price limit for each food item on the APL, and the purchase price charged to WIC must be adjusted to the NTE price.

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Because the benefit is in the form of specified foods rather than cash, and because each WIC participant is eligible only for her/his specific food package, and because the price charged to WIC must be at or below the NTE price, a WIC EBT redemption transaction is far more complex than SNAP (or any other cash benefit) EBT and is often considered the most complex transaction at the retail point of sale. Greatly simplified, the complete WIC EBT transaction in the grocery store involves the following:

- 1. An electronically stored account is created for each household.
- 2. Participant swipes or inserts card and enters PIN. System validates card, PIN and retailer.
- 3. Cashier scans foods:
 - Item Universal Product Code (UPC) is compared to APL to determine if this UPC on the state's APL.
 - Item is compared to cardholder balance stored on the card or on the EBT Host to determine if this item and quantity appear in the participant's prescribed food account.
- 4. Store price is captured from the store's Point-of-Sale (POS) system for each food item.
- 5. Discounts, coupons are captured.
- 6. WIC EBT system approves/denies transaction. If approved:
 - a. The stored household account balance of each food item is reduced by amounts purchased.
 - If price exceeds Not-to-Exceed, paid amount for item is reduced to the state's NTE
 - c. Paid amount is calculated.
- 7. Receipt showing details of transaction and updated account balance is printed.

The first WIC EBT initiatives were systems that used integrated circuit chip (ICC) smart card technologies; because at the time the inherent complexity of validating the food purchase for WIC precluded use of existing "cash account friendly" credit/debit networks accessed with magnetic stripe cards. In the smart card WIC EBT systems the purchase transaction occurs between the smart card and the software in the store's Card Acceptance Device/Point of Sale (CAD/POS) terminal. (A "live" connection to the WIC EBT processing system is not required to complete the transaction, hence early use of the term "offline" to describe this type of WIC EBT system.) On a daily basis, WIC EBT transactions from the store (or chain) are batched and sent in one file to the WIC EBT system host for processing and settlement.

Recent advances in POS transaction processing technologies and the development of WIC technical and messaging standards have recently made online WIC EBT technically feasible. Like SNAP and cash EBT, online WIC EBT is being built on the retail POS and debit and credit infrastructure and uses national standards for the processing of financial transaction messages, but additional requirements for validating food purchases have been developed specifically for WIC EBT. "Online" WIC EBT requires a "live" or real-time connection between the store's ECR/POS system and the WIC EBT Host to complete each transaction and settlement.

Unlike SNAP and cash EBT, which by law must be an online system and interoperable across state lines, states WIC programs have the option of implementing either online or smart card systems for WIC EBT. Both technologies (magnetic stripe and smart cards) and systems (online

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and offline) have distinct advantages and disadvantages, and are considered as WIC EBT alternatives within this Feasibility Study.

3. Vermont WIC Overview

3.1 Current WIC Benefit Delivery Environment

3.1.1 WIC Benefit Delivery

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides specific nutritious foods, nutrition and breastfeeding education, and referrals to pregnant, breastfeeding and postpartum women, infants and children up to five years of age who are determined to be at nutritional risk and meet income guidelines. Vermont serves approximately 16,000 participants, in 10,000 households, monthly. The annual unduplicated count of WIC participants in Vermont is approximately 24,000. The WIC Program is funded by the United States Department of Agriculture (USDA), governed by Federal Regulations contained in the Federal Register 7 CFR Part 246.

Vermont WIC benefits are authorized through Vermont Department of Health. VT WIC is administered throughout the state by 12 Local Agencies and participants are served at 50 clinic sites. (Except for the 12 clinics held in Local Agencies, the remaining sites are temporary sites in churches and other community locations, generally open one day per month or one day every other month, with no permanent infrastructure).

Most WIC foods are delivered by contracted home delivery vendors to the homes of certified WIC participants. This allows only specific food benefits to be redeemed within a specific timeframe. The program delivers WIC foods worth about 9 million dollars annually. The WIC Program also contracts with 128 retailer grocers across the state to provide fruits and vegetables to WIC participants using the SNAP EBT platform and a WIC-specific magnetic stripe EBT card. The WIC fruit and vegetable benefit is by federal law a cash value benefit, unlike the remainder of the WIC food package that is specific foods in specific quantities. Vermont WIC recipients are expected to redeem over \$490,000 a year in WIC fruit and veggie cash value Electronic Benefit Transfer (EBT) benefits in 2011.

Vermont WIC uses an out dated paper based system to manage home delivery of benefits and to manage the vendors. The aged home delivery system model contains increasing risks due to:

- Inadequate availability of vehicles suitable for delivery
- An aged workforce of delivery vendors with no replacement force planned
- A paper based home delivery management process which is labor intensive
- Incompatibility with a new WIC MIS and the federal mandate for WIC EBT

The current EBT program for fruits and vegetables uses the SNAP EBT platform, because the WIC fruit and vegetable benefit like SNAP is a cash value benefit, providing a fixed dollar benefit each month. To deliver the full WIC food package, however, a far more complex and robust EBT model is required than the SNAP platform, as described in Section 2.

Vermont needs to phase out the current home delivery system for food distribution and move to an EBT model, in alignment with the FNS strategic plan for EBT. The selected vendor/system must address Vermont's business needs as well as the specifications identified in the federal Functional Requirements Document for a Model WIC System (FReD). Thus the overall goal for

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this project is to obtain a cost effective food benefit delivery system that meets the following requirements, at a minimum:

- Is scalable so future enhancements can be easily added to the system
- Provides flexibility in software changes
- Captures and maintains all standard WIC EBT data elements, and allows easy implementation of changes such as food items changes
- Is compliant with current federal policies and regulations and can respond to federal and state reporting requirements
- Enhances fiscal accountability and program integrity
- Supports and improves delivery of WIC benefits to eligible individuals and families
- Improves service delivery to participants
- Improves staff satisfaction through ease of use, a minimal learning curve, and automation
 of tasks
- Supports integration and data exchanges

3.1.2 System History

The current Vermont WIC management information system that is used to store household 120 fields (99 on the data entry form, but there are additional system-generated fields) was developed in 1977. It operates on a current model IBM mainframe and utilizes CICS for transaction processing, VSAM for database management, and COBOL and Gener/OL as the programming languages. The mainframe has the ability to host SQL. Although the WIC system has been successfully modified to meet federally mandated requirements, only 11 of the 24 current core WIC functions are automated.

Vermont WIC currently has about 23,000 active records. Any individual record is updated at least monthly, with some having more frequent activity. When a record is updated, the old information is not retained within the legacy system, but a weekly extract of updated records is transmitted to VDH for retention in a WIC transaction history file.

Vermont WIC uses a home delivery system to distribute the majority of the WIC food benefit. Starting in October 2009, Vermont added retail grocers as authorized WIC vendors, but only for the fruits and vegetables in the new WIC food package.

All Vermont WIC food orders are presented for home delivery using the WIC Proof of Delivery form (POD). Participants receiving food must verify receipt of all food items each month in which products are provided. Vendors must submit all PODs for payment and reconciliation. The Proof of Delivery form allows the WIC Program to track each food delivery made to participants. The form lists all of the foods that are authorized for the WIC participant(s) each month. The POD provides all the information needed by the vendor for Home delivery of WIC foods to the participants. The POD form is 3 hole punched and printed on NCR paper (one page yellow and one page white). Either color may be given to the participant, the other copy stays in the route book. In addition, "office" copies of the POD are generated to be kept in the Vendor's office for reference.

PODs for the total quantities of WIC food authorized for each family are automatically printed once a month at Department of Information & Innovation (DII) using information on file for each family member. Forms are printed around the 24th of the month for the following delivery month.

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The dates for each monthly run are indicated on the POD calendar. PODs are delivered to WIC Central Office where they are sorted and shipped to the individual vendor.

POD shipments are received at Central Office and are packed and shipped to each vendor the same day. The vendor chooses shipping method, options include: vendor pick-up, VT Transit bus, Fed Ex, or US mail.

FTP record transfer is available on request to load PODs electronically into the vendor's computer system for tracking and monitoring.

On-line PODS are run on Monday and Thursday evenings. Forms are delivered to WIC CO where they are sorted and mailed (USPS) to vendors on Tuesdays and Fridays.

On-line PODS are generated to:

- Authorize delivery of a partial month food order for the current month. Forms may be generated for new participants, for participants who move to a new Vendor, have food package changes, or to authorize delivery of food for the next month after the monthly PODs are printed.
- Authorize delivery of food for the next month when the food order is written after the deadline indicated on the POD calendar.
- Authorize replacement of lost or stolen foods.

PODs submitted for payment are data entered to adjust and verify delivery of authorized quantities. Monthly reports are generated to reconcile authorized quantities. Once all deliveries for the month have been made, the vendor submits an invoice for the billing month with required infant formula inventory documentation, cost documentation if indicated. The invoice is processed for payment after corrections for math, quantity or price. Vendors review and respond to reports generated from data entry of POD forms submitted for payment. Reports are compared to the original invoice and adjustments are made if the initial payment was incorrect. The Vendor Invoice Adjustment (VIA) Report is used to reconcile the adjustment amount for the adjustment month in the billing month.

3.1.3 Stakeholders

Creating a paperless system is a major goal of the WIC program, and a WIC MIS and EBT solution will require the close cooperation of the Vermont WIC program, the USDA FNS, DII, AHS, and VDH IT. AHS IT is preparing to implement a new Agency of Human Services Information Systems architecture and new WIC systems (MIS and EBT) must be compliant with the Agency's new Core Components.

A range of project stakeholders exists and system users will need access to the WIC EBT to input data, receive data, or to create reports. Each user has unique needs and requirements. A summary of each user's responsibilities and major system usage is listed below.

Name	Represents	Role
VDH direct service, supervisory and management staff at local level	User	Internal
WIC state level staff	User, Managers	Internal

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DII System analysts	Current system development, maintenance, management and data migration	Internal
VDH IT development staff	System feasibility, appropriateness, integration and enhancement	Internal
State /AHS IT Operations staff	System management, oversight and compliance	Internal
USDA WIC staff (regional program and IT, national IT)	Grant Funding entity, program oversight, standards documentation	External
WIC participants (16,000 individuals)	Recipient of services and benefits	External
Vermont WIC Authorized Vendors	Vendors of Benefit items	External
Third Party Processors	Payment Processing	External

3.1.4 Problem Statement

The problem of	 Vermont WIC currently uses all three food delivery systems authorized by federal WIC regulations: home delivery for most food items, direct distribution for exempt formulas and medical foods and EBT for the fruit and vegetable cash value benefit. This is complex and inefficient. 		
	Due to the limitations of delivery schedules and the size of trucks, the Vermont WIC participants very few food choices compared to participants in other states.		
	WIC home delivery vendors are aging and there is not a cohort of individuals or companies capable of entering the home delivery business as our current vendors retire.		
	 Home delivery vehicles are also aging, and the type of small refrigerated trucks used for home delivery are no longer manufactured. Conversion of other types of vehicles is difficult and expensive. 		
	VDH direct service, supervisory and management staff at local level		
Affects	WIC state level staff		
	DII System analysts		
	VDH IT development staff		
	State /AHS IT Operations staff		
	Home delivery vendors (17) (private businesses)		
	Authorized retail grocers (128) (private businesses)		
	USDA WIC staff (regional program and IT, national IT)		
	Other VDH and AHS program managers		
	WIC participants (16,000 individuals)		
The impact of	Inability of participants to receive the full nutritional benefit of the WIC food package if they do not like the limited choices available		
which is	Risk that benefit delivery will be interrupted if a home delivery vendor is injured or retires, or has a major truck breakdown		
	Inefficient use of staff time to manage three food delivery systems		
	Consolidate current systems into one EBT system		
A successful solution would	Reduce staff time spent authorizing and monitoring vendors, and troubleshooting food delivery issues		

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Increase participant food choice, leading to increased utilization of the WIC food benefits
 Improve the health status of WIC participants

3.2 Project Coordination and Management

3.2.1 Project Oversight

The primary responsibility for Project Coordination will be the Vermont WIC program Central Office, with Donna Bister, Vermont WIC Director, being assigned with primary oversight responsibility. Oversight activities include:

- Serve as the project's primary Subject Matter Expert (SME), stakeholder and project champion.
- Oversee and approve project plans
- Monitor project progress
- Collaborate and communicate with the other State WIC Management Team members
- Serve as primary liaison between the Vermont WIC program, the Implementation Contractor and QA Contractor
- Approve (or deny) strategic project decisions such as whether the WIC program is ready for user acceptance testing (UAT) and Production Pilot, or whether to impose penalties on contractors should they be out of compliance with their contract
- Serve as final authority regarding all project-related decisions and contractor deliverables in collaboration with VDH IT, AHS IT and DII.

3.2.2 Project Management and Technical Leadership Team Responsibilities

Project Management tasks will continue to be provided through a contracted position, either by continuation of the existing contract or a similar procurement. The current Project Manager is Jeanne Keller of Keller & Fuller, Inc.

Technical Leadership for the project will continue to be provided by VDH IT System Developer III Nancy Rowell.

The responsibilities of the Project Management and Technical Leadership Team include:

- Assist in communication with, knowledge transfer to, coordination and scheduling of state and local personnel involved in project activities and deliverables
- Assist in the oversight of contractor activities
- Develop and implement a communication plan to inform stakeholders of project activities
- Research and oversee the procurement of necessary hardware
- Coordinate scheduling, participation in and oversight of Pilot, UAT, rollout and implementation activities
- Assist the contractors with addressing telecommunication and network issues during testing activities
- Assist DII WIC developers and contractor(s)during preparation of initial data upload to EBT system

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- Assist contractor(s) with providing technical assistance to state and local agency staff throughout testing and implementation of the system
- In collaboration with the Implementation Contractor, develop training materials for the EBT system
- Oversee local agency staff training on the EBT application with other designated local and state staff
- The Full Team will meet weekly with the WIC Director to review status reports, project plans, project deliverables and other relevant project materials.
- The Technical Lead will meet daily with the WIC Director to review activities and plan the next day's work tasks.

3.3 Tasks and Responsibilities of Other VDH and WIC Staff

VDH WIC Central Office staff, VDH Office of Local Health, and VDH District Office WIC staff, as appropriate, will be assigned tasks supporting the implementation project. State WIC staff persons have various technical and managerial skills which will be invaluable throughout the project, including:

- WIC requirements
- · Operations of the current IS system
- Clinic operations
- Training
- Vendor certification, management and monitoring

These skills and the team approach required for operating as a small staff will be critical in ensuring a successful project. The time that each staff person will need to devote to the project will vary according to the stage of the project and the expertise of each individual. The WIC unit meets weekly to review all projects and plans, and to assign tasks as needed. Everyone on the State WIC staff will be involved in the planning process, and should Ms. Bister leave before the project is complete, another person on staff would be able to step in immediately.

3.4 Project Roles and Responsibilities of VDH and Other State Agencies

Several state agencies will participate in or support the project:

Agency		Role / Responsibility
VDH Information Technology Advisory Team (ITAT)	•	VDH departmental project approval
Department of Information and Innovation	•	Operation of current system
(DII) & AHS IT	•	Legacy data cleaning
	•	Legacy data conversion
	•	Production migration from legacy Home Delivery to new WIC EBT
	•	Serve as primary stakeholder for state wide interfacing systems, i.e. VISION system

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	Project Resource provider for RFP development, SOV Protocols, Architecture, State IT Project Management
	Serve as primary stakeholder for the AHS Core Components interface
VDH IT	VDH IT Resource allocation
VB1111	Oversight of ITAT approved projects
	Requirements Technical Leadership
VDH Business Office	Financial reports and oversight

Vermont's DII technical unit and the AHS IT resources are in the process of co-locating and reorganization. The reorganization and its effects are not anticipated to negatively affect either the VDH IT unit or the WIC program's projects. The roles and responsibilities of these key stakeholders in the current system, and their roles in development of functional requirements for the new MIS and EBT systems are documented in *Vermont WIC MIS/EBT Project: Vermont WIC Functional Requirements v. 3*, which is attached as Appendix D.

4. Vermont Management Summary

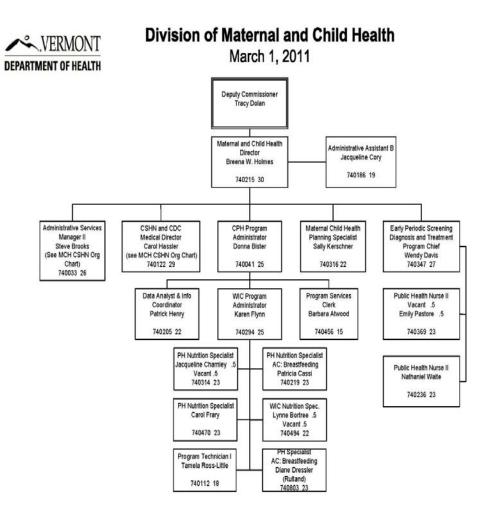
4.1 Vermont WIC Organization

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides specific nutritious foods, nutrition and breastfeeding education, and referrals to pregnant, breastfeeding and postpartum women, infants and children up to five years of age who are determined to be at nutritional risk and meet income guidelines. Vermont serves approximately 16,000 participants, in 10,000 households, monthly. The annual unduplicated count of WIC participants in Vermont is approximately 24,000. The WIC Program is funded by the United States Department of Agriculture (USDA), governed by Federal Regulations contained in the Federal Register 7 CFR Part 246.

Vermont WIC services for participants are provided throughout the state by 12 local agencies, located in VDH district offices. District offices are managed by the Office of Local Health within the VDH WIC participants are served at 50 clinic sites. Except for the 12 clinics held in district offices, clinics are held at temporary sites in churches and other community locations, generally open 1 day per month or one day every other month, with no permanent clinic infrastructure.

The Vermont WIC state agency is located in the Agency of Human Services (AHS) Department of Health (VDH), Division of Maternal and Child Health (MCH). The organizational chart below shows the placement of the WIC state agency within the structure of the division, and is followed by a brief description of the role of each staff person.

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The CPH Programs Administrator/WIC Program Director is responsible for program planning, development, implementation and evaluation for the Vermont WIC Program, and for oversight of program implementation in the 12 Vermont Department of Health District Offices that serve as WIC Local Agencies.

The roles of other staff in the WIC unit are:

- WIC Program Administrator oversees daily operations and is responsible for contracts, grants and special projects.
- Public Health Specialists are responsible for nutrition, breastfeeding and physical activity services, staff training, participant educational materials, and coordination with partner programs.
- The Program Technician I is the home delivery vendor manager and is responsible for vendor monitoring, payments and reconciliation.
- The Data Analyst & Information Coordinator is the retail vendor manager for the cash value EBT benefit, fiscal reporting, data analysis and Geographic Information Systems support.

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 The Program Services Clerk handles administrative tasks for the WIC unit and other MCH programs.

Most WIC foods are delivered by contracted home delivery vendors to the homes of certified WIC participants according to a schedule that allows specific food benefits to be "redeemed" by the participants within a specific timeframe. The program delivers WIC foods worth about \$9 million annually. The WIC Program also contracts with 128 retailer grocers across the state to provide fruits and vegetables to WIC participants using the SNAP EBT platform and a WIC-specific magnetic stripe EBT card. The WIC fruit and vegetable benefit is a cash value benefit, unlike the remainder of the WIC food package, which is specific foods in specific quantifies. Vermont WIC recipients are expected to redeem over \$490,000 a year in WIC fruit and vegetable cash value Electronic Benefit Transfer (EBT) benefits in 2011.

The current number of WIC MIS users is relatively small (about 40), spread among the 12 district offices, WIC central office and DII in Montpelier (for the legacy DII system). Once a new MIS and EBT system is in place, Vermont WIC would expect the number of users to rise to about 160, and Vermont WIC will need to provide some type of system access in another 50 temporary locations around the state to support the WIC clinics and benefit delivery .

The Vermont WIC MIS users and their user environments are varied, ranging from public health nutritionists at remote clinic locations to the super administrative users within VDH who must report to federal agencies.

- The VDH public health nutritionist work environment is variable but does include access to the district office environment. Currently, paper forms created at the clinic are submitted to the district office administrative unit for data entry. With the installation of a new MIS, additional access points would be necessary, as data creation will take place in the clinic environment. Each clinic examination room at the district level would need hardware to access the MIS. For off site clinics, portable hardware would be necessary. Except for EBT card reader/writers additional hardware for the EBT system is not expected.
- The typical VDH central staff user currently has a reliable network to utilize and access to a variety of MS tools.
- The participant's environment is naturally a varied home environment that may or
 may not have internet access. Kiosks will be needed in each district office for
 participants to check on their benefit status. Currently there are kiosks in each
 district office within the Department of Economic Services offices.

4.2 Objectives

The EBT system will benefit both the retailer and the participant by delivering a seamless WIC transaction at the cash register, making the transaction appear no different than any other card transaction by any other shopper. Not only will this remove the stigma associated with the WIC transaction, it will give WIC participants the flexibility to shop as frequently as they wish while still allowing them to receive only the approved foods in the correct quantity. WIC EBT will give the retailer confidence that the shopper purchased only the items contained in their prescription, along with the other items on their shopping list. There will be no need for cashiers to "police" the eligibility of food purchases of WIC recipients. It will enable smoother, faster in-lane transactions and expedite payments to retailers.

Improving health status is the primary aim of WIC. The current system limits staff ability to affect the health outcomes of the WIC participants, as Vermont WIC has to spend time on inefficient, duplicative systems that could be better spent on helping individuals and families achieve better health. The WIC EBT project will bring WIC information systems up to date and allow reallocation

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of staff time from managing paper-based systems and data entry, to nutrition services - the key to helping families make the behavior changes needed to improve health outcomes.

Additionally, WIC EBT is 7th out of 18 items slated for Tier One of the Vermont Agency of Human Services' IT Modernization/HIE Integration Opportunities as reported in the *Vermont Health Information Technology Plan*, dated July 23, 2010.

4.2.1 Compliance with Regulations and Standards

- The Child Nutrition Act, S. 3307: Healthy, Hunger-Free Kids Act of 2010, section 352 requires each state to implement WIC electronic benefit transfer (EBT) systems by October 1, 2020.
- Objective D of the USDA FNS vision for the WIC MIS system contains the core directive
 of WIC EBT: "Improve Benefit Issuance Process." Ultimately, the objective is to eliminate
 the need for paper food instruments altogether through Electronic Benefit Transfer (EBT).
 Included in this objective is the need to design an automated process that enables quick
 assignment and issuance of food packages that are nutritionally appropriate for each
 participant.
- Objective E of the USDA FNS vision for the WIC MIS system is the directive to improve the accuracy in funds management. This objective places emphasis on the importance of automated systems in ensuring accuracy and accountability in the area of funds management. Systems must be able to reconcile each food instrument redeemed to a valid issuance record and a valid participant record. The system must flag and re-price food instruments that exceed their maximum State-allowed value. Systems should also track food and NSA expenditures to ensure that funds expended are within authorized levels. Due to the volume of food instruments processed daily, the lack of automation in this area makes timely financial and management decisions much more difficult.
- To ensure consistent operating rules from State to State, a national WIC standard for retail electronic transaction processing has been developed for use by retailers. FNS will continue to promote the development and use of WIC EBT technical standards to facilitate nationwide implementation of EBT. FNS will take steps to identify and secure additional sources of funding for State WIC EBT initiatives.

4.2.2 Enhanced WIC Benefit Delivery

For the WIC Participant, WIC EBT will:

- Remove the stigma associated with paper WIC transactions
- Ensure that a participant is able to purchase her full, prescribed WIC food package at her discretion within the valid period of issuance
- Ensure that the WIC food transaction affords the participant dignity and convenience
- Ensure the purchase of WIC-authorized food items

For the retailer, WIC EBT will:

- Encourage retail system integration
- Enable smoother in-lane transactions at retail locations
- Reduce paper handling and processing at the retailer and the WIC host
- Expedite payments

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- Eliminate the errors associated with paper-based systems (e.g. wrong date, unapproved food, identity verification, retailer validation stamp)
- Provide real-time maximum pricing adjustments
- Reduce training requirements for cashiers, relative to paper-based systems

4.2.3 WIC Business Process Automation

For the Vermont WIC Program WIC EBT will:

- Ensure that participant receives prescribed foods
- Provide data on type and amount of foods purchased
- Allow for accurate rebate billing on infant formula purchased
- Ensure that retailer claims do not exceed "Not to Exceed" limits
- Enable a secure transaction
- Enable timely and accurate claims
- Reduce the amount of time and effort spent on retailer compliance activities
- Reduce the amount of time and effort in monitoring and reconciling retailer overcharges
- Reduce forgery and fraud opportunities
- Increase accountability
- Reduce paperwork
- Enable numerous reports on EBT activity to improve administrative efficiencies
- Streamline clinic operations; increases time for nutrition education

4.2.4 WIC EBT Readiness

WIC EBT is 7th on the list of 18 items slated for Tier One of the Vermont Agency of Human Services' IT Modernization/HIE Integration Opportunities as reported in the *Vermont Health Information Technology Plan*, dated July 23, 2010.

Because the current WIC MIS was designed to support a home delivery system, extensive modifications to the system would be needed to support WIC EBT functional requirements. To support states in modifying their current WIC MIS or upgrading to a new WIC MIS, FNS developed the *Functional Requirements Document for a Model WIC Information System* (FReD), which identifies EBT readiness functions for incorporation into the WIC MIS. Vermont created its own MIS FReD based upon its own functional requirements and including all FNS EBT functionality. In addition to the functional modifications, an interface between the MIS and the selected EBT system will enable the MIS system to interface with the EBT system to authorize WIC benefits in an electronic environment.

The implementation of an EBT-ready WIC MIS is to occur simultaneously with the implementation of an EBT system.

The interface for a Vermont WIC EBT will be developed under the Vermont WIC MIS/EBT project. Additional components may include:

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- · EBT Host System
- · Retail Point of Sale (POS) data exchange Interface
- Payment Processing Systems Interface
- Financial Institutions Interface

4.3 Requirements

4.3.1 Vermont State Computing Environment

The approximately 160 Vermont Department of Health state users and the user environments are diverse in nature. The user community ranges from Public Health Nutritionists at remote Clinic locations to the super users within VDH who must report to a federal level to participants at the service level in a corporate retail or a small business environment. The typical VDH Central staff user has a reliable network to utilize and access to a variety of Microsoft tools. The VDH Public Health Nutritionists work environment is variable but does include access to the District Office environment. Currently data entry activity occurs subsequent to clinics and is accomplished from paper forms.

A WIC EBT solution will follow all established policies, procedures, and guidelines, whether they have been invoked by the USDA FNS, VDH IT, VDH, AHS, DII or state of Vermont policy.

4.3.2 WIC EBT Functionality

The Vermont Functional Requirements Document with EBT functionality (FReD) presents a high-level description and non-technical description of the required functionality of the envisioned MIS and EBT systems. Included in the Vermont FReD are non-functional requirements in section 4.0 of the analysis spreadsheet, which aided the technical lead in determination of compatibility with state IT infrastructure and identification of usability issues.

4.3.3 Vermont Retailer Readiness

For a WIC authorized vendor to be EBT ready, the vendor must have the software and hardware in-lane that will accept a WIC EBT card and process WIC EBT transactions, and the capability of transmission of transaction information to the WIC EBT system.

- Both online or offline WIC EBT depend on a robust telecommunications infrastructure and Internet or web access. Both offline and online WIC EBT require uninterrupted data exchange to ensure a successful WIC transaction; however, online requires a "live" data exchange at the time of the in-lane transaction, while the offline system requires "live" data exchange only for the once-per-day upload of transaction data and download of Hot Card List (HCL) and APL.
- The American National Standards Institute (ANSI) X9.93 (Parts 1 and 2) standardizes
 data exchanged between the WIC EBT system and the store ECR/POS or corporate
 acquiring system for online and offline WIC EBT systems, respectively. The Part 2
 standard provides guidelines for daily batch file uploads and downloads between the WIC
 authorized vendor or the vendor's corporate-level system and the WIC EBT system.
- It is strongly recommended that small WIC authorized stores have a telephone line dedicated to online financial data transmissions, rather than use of shared voice/data, due to the significant amount of data involved in an online WIC transaction, and/or batch data transmission. In an online environment, larger stores will need a broadband connection.

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- To be considered WIC EBT ready, the vendor's system must be certified as capable of reading the scanned UPC/PLU, accepting the WIC EBT card, transmitting required data including WIC card/PAN, cardholder security/PIN, WIC vendor, transaction date and time, WIC food item identifiers and WIC price to the WIC EBT system for verification and approval.¹
- For the retailer to be WIC EBT ready for the online WIC EBT system, this means an
 integrated electronic cash register (ECR) system with Universal Product Code (UPC)
 scanning capability and a POS terminal to read the WIC EBT card. The POS and ECR
 software must be capable of accepting and processing WIC EBT transactions.
 Transactions would route through the normal financial intermediaries for settlement or a
 direct connection for payment.
- The offline WIC EBT system also requires an integrated ECR/POS configuration with scanning capability, for WIC EBT readiness. A grocer's ECR/POS must include a card reader with capability to read and write to the WIC EBT smart card. The grocer's own back-office system will communicate with the EBT Host system at least once per day to upload transactions and download the Approved Products List and Hot Card List.
- For grocers who do not have an EBT ready system, the state will provide a "stand beside" system containing the WIC logic and functionality for either online or offline WIC EBT.

4.3.4 Other System Impacts

The State of Vermont Department of Information and Innovation (DII) and Agency of Human Services (AHS) are in the midst of updating and redesigning their Information Technology infrastructure. Most of the new and updated hardware and software systems are in the implementation phase, which is advantageous for the WIC program. These systems, when in production, will aid and ease the WIC program's automation goals. Imports and exports of data from and to these systems will not adversely affect WIC's implementation of a new MIS/EBT system.

The Vermont Agency of Human Services (AHS) envisions the creation of a "Healthcare Enterprise" comprised of modern, responsive, interoperable systems that are integral parts of the AHS enterprise architecture. These systems support the vision for information technology with shared services and common technologies that can efficiently and effectively support provision of health care services to Vermonters. The Healthcare Enterprise is part of a larger IT framework and is designed to leverage the health information exchange being created by the Vermont Information Technology Leaders (VITL) initiative, which conforms to the Vermont Health Care Technology Strategic Plan, the Blueprint for Health, the Vermont Health Care Reform 5-Year Plan and the Agency's IT Strategic Plan. Sharing of WIC information with any other system is not planned as part of this project.

In addition to the specific Medicaid-system projects, the AHS and its various departments are undertaking a number of technology and business projects, which will result in significant changes to its information technology infrastructure and architecture. The AHS has been scoping and defining Enterprise Architecture in the Agency to ensure future growth and efficiency needs are met. To this end, AHS is currently procuring foundational components consisting of an Enterprise Service Bus (ESB), Workflow Component, Rules Engine, enterprise Master Person Index (MPI) and Identity Management. By leveraging these components, AHS intends to realize an environment that supports service orchestrations and data sharing across the Enterprise.

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As of this submission, certification requirements have not yet been finalized by FNS.

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These components will need to be built upon and extended within the Vermont Medicaid Enterprise System (VMES) procurement.

The planned AHS Service Oriented Architecture (SOA) components will include a transformation hub (TH) often referred to as a rules engine, an Identity Administration and Management (IDM) solution, a Workflow component (WF), an enterprise Master Person Index (eMPI) solution, and an Enterprise Services Bus (ESB). These components were procured as a suite of components in a bundled package from a particular vendor.

4.4 Assumptions and Constraints

4.4.1 Operational Life

For the purposes of cost analysis and system comparisons, Vermont WIC assumed that Vermont's EBT system will have at least a 5-year operational life. While many systems have a longer lifespan, we limited our assumption to the period of cost analysis.

4.4.2 Availability of Information and Resources

Vermont WIC has relied on information available from two SAM MIS projects and their associated EBT systems, SPIRIT-EBT and MPSC WESS, and Michigan for the MI-WIC's EPPIC system to determine which of these WIC MI systems will meet Vermont's needs for an EBT system. Vermont WIC has relied on information available from Michigan and from New Mexico/Wyoming for information about their online and offline EBT systems, respectively, and on the EBT system outsourced hosting vendors, also to determine which of these systems will meet our needs for transitioning from home to retail delivery via EBT.

Recognizing that the SPIRIT and MPSC systems are newly implemented, it is possible that some changes in current assumptions may ultimately be required. However, it is anticipated that any such changes would be minor and have no significant effect on Vermont WIC plans for transfer of a system.

4.4.3 Financial

Vermont WIC has relied upon the FNS models for evaluating the cost-benefit of alternative solutions, and upon internal financial records, time studies and other available information to project costs and benefits. Vermont WIC assumes that implementation and IT infrastructure grant monies will continue to be available for MIS and EBT, and require no state matching funds.

4.4.4 Legislative and Policy

There are no anticipated legislative constraints to the project. State procurement and IT development policies impose requirements on the project, but do not constrain the project at this time.

4.4.5 Technical

Life Cycle of Current WIC MIS. The current Vermont WIC management information system was developed in 1977. It operates on a current model IBM mainframe and utilizes CICS for transaction processing; VSAM for database management; and COBOL and Gener/OL as the programming languages. Although the WIC system has been successfully modified to meet federally mandated requirements, only 11 of the 24 current core functions are automated. Furthermore, the lifecycle of the current MIS is only as long as the career of the last remaining programmer currently managing it. It is assumed that a new WIC MIS will be acquired which contains EBT necessary functionality.

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State Government Technical Requirements. The Vermont WIC program desires a paperless system, from data creation to data storage, with the capability to exchange data with other AHS programs, Vermont State systems, the CDC and FNS. The WIC system must be compliant with the AHS Service Oriented Architecture and therefore utilize the AHS Rules Engine, the data management system, AHS security services, the AHS Enterprise Master Person Index (eMPI), the AHS Workflow and Identity Management system. If necessary, the MIS system will have the ability to receive and store unique ID's from the AHS EMPI.

Life Cycle of the Current WIC Food Delivery System. Vermont needs to phase out the current home delivery system for food distribution and move to an EBT model, in alignment with the FNS strategic plan and Congressional mandate for EBT. Even prior to the deadline for EBT, several home delivery vendors are expected to retire and cannot be replaced. Given the extreme need for a new MIS, implementation of an EBT system in conjunction with the MIS is deemed most prudent given the opportunity to extend a paperless business process to the redemption of WIC benefits.

4.4.6 Operational

Operational constraints would include those imposed by an outside agency if the proposed system will be integrated with another public assistance program.

No operational constraints, other than those imposed by USDA-FNS, are anticipated.

5. Cost Assessment

5.1 Cost Benefit Analysis

Vermont used the USDA/FNS National Cost Benefit Analysis Model to assess the costs of all four approaches to EBT – in-house on-line and off-line and out-sourced on-line and off-line – and to compare the costs of each of these system to the cost of our current food delivery system. The current system uses home delivery for the majority of the food package, out-sourced on-line EBT for the cash value benefit portion of the food package, and direct distribution for exempt formulas and medical foods. The detailed cost analysis is provided in Appendix J.

The results of the technical impact assessment on infrastructure requirements and organizational impact assessment on staffing and other resource requirements were incorporated into the cost model. As required by the FNS cost model, the Vermont WIC cost assessment covers acquisition, development, implementation and operational phase.

5.2 Implementation Costs

Implementation costs are the labor, hardware, software, and contractor costs expected to be incurred during this initial phase. In addition to the specific comments and notations in the cost worksheets, these considerations and assumptions were used to estimate and consolidate these costs.

 Vermont will implement stand-beside POS terminals as needed. We based our estimates on the number of current WIC-authorized retailers who have SNAP standbeside terminals.

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- Regardless of the solution, the State will provide some level of integration support, as funding permits². Our initial assessment of retailer readiness indicates that one chain could benefit from integration support. The other major chains in Vermont are using systems that have a WIC EBT certified version. These chains may require software or terminal upgrades, but they will not need extensive integration support.
- Local agencies will not require additional wiring in order to support POS terminals in the WIC clinic waiting rooms.

The total design, development and implementation cost for the off-line, in-house solution is approximately \$700,000 more than the on-line out-sourced solution, primarily due to the higher cost of cards and additional administrative terminals at the local level to handle card replacements, food package changes and other actions that must be loaded on the card in an off-line environment.

5.3 Operations Costs

The majority of the estimated costs for operating the online, outsourced solution are derived from the ongoing Cost Per Case Month (CPCM) pricing, a fee assessed each month for each active case. The estimated CPCM used in the analysis is based on Vermont's current cost per case month for CVV-EBT only. This is a relatively low figure, and Vermont WIC plans to use some of the following strategies to keep CPCM costs low, including:

- Paying the implementation costs of the outsourced processor upfront to avoid having the costs built into the on-going CPCM
- Negotiating an overall reduction in cost, as any upfront payment will alleviate the
 processor from financing the project and will allow the processor to realize profits earlier
 in the operational timeline.
- Reducing or eliminating any extraneous services normally provided by a full-service processor, such as 24x7 live customer service, professional training materials, and other similar services.
- Investigating the cost savings that may be achieved by using the Northeast Coalition of States SNAP EBT contract for WIC EBT. This may include economies of scale achieved by the additional caseloads and sharing the costs of stand-beside terminals.

5.4 Retailer-Borne Operational Costs

We did not assess retailer-borne operational costs as part of this analysis for several reasons:

- We have no baseline retailer-borne costs to use for comparison. Current CVV-EBT costs are negligible, and are not representative of the costs of a paper-based WIC retail system.
- Both on-line and off-line systems may include some additional costs for retailers if they
 choose to integrate. However, we do not anticipate that these costs will create a
 disincentive for retailers to participate in a Vermont WIC EBT program as long as
 implementation costs are not excessive. Retailers will have the option of using state
 owned stand beside card acceptance devices to minimize their implementation costs.³

² The Implementation Advance Planning Document will include an Integration and Certification Plan providing more detail on the expected scope of implementation support necessary, and Vermont WIC's plan for seeking funding as required.

³ The estimated cost of state-owned stand beside CADs is included in the EBT cost analysis provided in this document.

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• In either an on-line or off-line system, retailers will have options that allow them to minimize on-going operational costs.

5.5 Summary Costs

WIC EBT costs include implementation and operational costs for the following elements, as applicable to the alternative:

- State-level labor and contractor support
- Project-level labor
- Material goods
- WIC EBT services
- State-borne costs for supporting WIC vendor transition to EBT.

As shown in the summary table on the next page, the Vermont WIC EBT cost assessment indicates:

- There is an estimated \$4.1 million difference in the total cost (implementation and operations) as shown in the Summary Costs column and listed in the "Total Cost to State" row, for the two alternatives through 2019.
- Operational costs for the offline, in-house solution are a more than double the costs of
 operating the online, outsourced solution through 2019. This is largely due to costs
 related to staff salaries and the related allocated costs. As noted in <u>Section 6.3</u>,
 outsourced offline and inhouse online EBT were eliminated from consideration for
 reasons other than cost and were not included in the cost portion of the analysis.
- The operating costs of out-sourced on-line EBT are less than the operating costs of Vermont's current system. This is in part due to inefficiencies caused by simultaneous operation of multiple food delivery systems, each with associated costs.

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	BASE- LINE 2011	Design, Develop & Implement		Operations: Implementation Period Plus Five Full Years		Summary: Design, Develop, Implement and Operate				
Categories		As- Is	OutS, On-L	In-H, Off-L	As-Is	OutS, On-L	In-H, Off-L	Current	OutS, On-L	In-H, Off-L
Labor Costs	212,148	0	1,748,745	1,991,729	1,332,248	1,835,838	3,937,634	1,332,248	3,584,583	5,929,363
State Level Labor	116,652	0	1,701,689	1,940,271	732,556	1,620,600	3,558,012	732,556	3,322,289	5,498,282
Regional & Local Labor	95,495	0	47,057	51,458	599,692	215,238	379,622	599,692	262,295	431,080
Materials & Services	17,514	0	63,796	379,295	109,985	90,849	1,402,979	109,985	154,645	1,782,274
Materials & Services	17,514	0	63,796	379,295	109,985	23,529	1,333,379	109,985	87,325	1,712,674
EBT Processor Fees	N/A	0	0	0	0	67,320	69,600	0	67,320	69,600
Travel			10,404	10,404					10,404	10,404
CVV-EBT Contractor	173,282	0	0	0	953,051	0	0	953,051	0	0
Retailer Costs	0	0	263,617	383,637	0	2,010	0	0	265,626	383,637
TOTAL COST TO STATE	402,944	0	2,086,562	2,765,064	2,395,284	1,928,697	5,340,613	2,395,284	4,015,259	8,105,678
Retailer-Borne Costs	0	0	0	0	0	0	0	0	0	0
Labor	0	0	0	0	0	0	0	0	0	0
Fines/Loss	0	0	0	0	0	0	0	0	0	0
TOTAL SYSTEM COST										
Including Retailers	402,944	0	2,086,562	2,765,064	2,395,284	1,928,697	5,340,613	2,395,284	4,015,259	8,105,678

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6. Alternatives Analysis

The Vermont WIC EBT Alternatives Analysis incorporates the findings of several different analyses including impact and readiness assessments, cost benefit analysis, and the Alternatives Assessment.

6.1 Methodology

Initial systems evaluations focused on the current Vermont WIC system to provide a clear understanding of the Vermont WIC business process and the data requirements that the new system must support. Evaluation began with a Gap Analysis of the current Vermont WIC system and USDA FNS functionality as laid out in the FReD, version 2008. The Vermont WIC GAP Analysis was employed as a tool to benchmark current system functionality and identify specific changes to the current WIC system required to make it more fully automated and EBT ready. The changes required encompassed both business process reengineering and systems automation. The Vermont WIC GAP Analysis Summary can be located in Appendix E and the full Gap Analysis in Appendix F of this document.

Many of the required business functions of the current Vermont WIC business process are not automated and are maintained via a paper process, external databases and spreadsheets. The baseline view of the current WIC MIS proved modifications to automated functions and automation of other business processes are required to support WIC EBT functional requirements. In addition to the functional modifications, an interface between the Vermont WIC MIS and the selected EBT system will be required to enable the Vermont MIS to interface with the EBT system to authorize WIC benefits in an electronic environment.

To aid the Vermont team in acquiring knowledge about the national WIC EBT environment, site visits and attendance at national conferences occurred throughout the planning process with attendance at future conferences planned for 2011 and vendors solicited to supply information about their WIC systems in production and systems in development. Contacts were developed with other states to gain their insight and experience.

Conferences attended:

USDA/FNS EBT User Group December 2004

NWA Annual Meeting Technology Track April 2007

NWA Technology Conference November 2007

USDA/FNS APD Training, including requirements for the MIS/EBT planning process July 2008 WIC EBT User Group Meeting 2010

ATMIA Conference / EBT Next Generation 2010

Maine EBT Vendor Showcase May 2011

National WIC Association 2011 Technology Conference Sept. 2011

ATMIA Conference / EBT Next Generation 2011 November 2011

Teleconferences:

Michigan MIS Demonstration May 2011 WIC Direct Demonstration June 2011

Site Visits:

SPIRIT EBT Showcase & SPIRIT MIS demonstration 2011

Vendors Contacted

ACS - Affiliated Computer Services Inc.

CDP, Inc – WIC Direct System

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CIBER

CSC - Computer Sciences Corporation QWIC - Quality WIC Information Corp JP Morgan

Vendor Presentations in Vermont

CSC & JP Morgan - SPIRIT MIS & EBT 3 SIGMA – Michigan's MI WIC CIBER – MPSC

WIC programs contacted

Cherokee Nation Chickasaw Nation

Connecticut Delaware Hawaii Maine

Maryland Massachusetts
Michigan New Hampshire
New Mexico New York
Rhode Island Virginia
Washington, D.C. Wyoming

6.1.1 Alternatives Costs Methodology

The USDA FNS WIC EBT Cost Analysis Model was developed to support the creation of a state's WIC EBT Feasibility Study and/or Implementation Advanced Planning Document (IAPD) by providing a tool for calculating the detailed costs of alternative WIC EBT solutions and capturing the benefits and risks of WIC EBT. Vermont WIC chose to adhere to FNS guidance and utilize the WIC EBT Cost Analysis Model to assess our alternatives:

6.1.2 Baseline Data – Current Functionality

The methodology for creating a baseline view of needed WIC EBT functionality involved assessing the business functionality and system capabilities of the Vermont WIC program compared to the Vermont WIC desired functionality and system capabilities. A Vermont Gap analysis was prepared by comparing the current Vermont WIC business process and automated functions against those required of an automated WIC Management Information System with WIC EBT functionality as specified by the USDA FNS Functional Requirements Document (FReD). The technical and organizational capacity of the State of Vermont IT support systems was considered, along with State of Vermont policy standards.

Activities conducted to create the Baseline WIC View were:

- · Interviews of WIC Administrative staff
- · Interviews of WIC Local Agency staff
- · Observation of WIC Clinics
- Interviews of VDH, AHS and DII IT Administration and staff
- Creation of an analysis of DII (Department of Information and Innovation) mainframe functionality
- Assessment of the skills and abilities and organizational impact an EBT system will have on WIC Program and MIS staff and services.

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Data resulting from the above tasks were combined to form a baseline of Vermont WIC's current functionality.

6.1.3 Vermont Desired Functionality

The VDH IT Unit's Requirements Elicitation Methodology was utilized to create a vision of Vermont WIC's desired EBT Functionality. This process included creation of a Vision document based upon stakeholder interviews. Subsequent to Departmental approval of the WIC MIS Vision document, the Vermont Functional Requirements Document (Vt. FReD) was created. This document outlines, by input, process and output, the functions desired by Vermont WIC for the new MIS and EBT systems.

Activities conducted to gather data for Vermont's desired functionality were:

- Evaluation of Documented System specifications for functionality, networking and system architecture
- · Site visits
- Interviews of System users
- Survey of the Vermont Retail Vendor Environment
- Assessment of the historical evolution of WIC EBT systems
- · Assessment of the current status of the national WIC EBT Environment
- · Assessment of WIC EBT systems in Development

6.2 Evaluation Criteria

The Vermont WIC EBT Solution Evaluation Guide served as a framework for EBT system evaluations. The VT FReD contains both MIS/EBT Systems Requirements and Functionality and served as a baseline for system comparisons of possible EBT system solutions. EBT system documentation reviews were conducted by VDH IT and DII developers and managers, EBT system site visits by WIC staff were conducted, VDH IT analyzed site visit review workbooks and WIC EBT system administrators were directly contacted.

6.3 EBT Alternatives Analysis

The resulting system evaluations were subjected to analysis and reviewed for essential decision-making criteria, which were then scaled for importance. A total higher score indicates that a system is preferred but is not the only determinate in choosing a software or system.

Vermont is not required to utilize all of the possible WIC EBT alternatives with this model. Rather, following an assessment of the Vermont state technical environment and the WIC program capabilities, a determination was made of which alternatives would be viable in Vermont. The three alternatives not considered viable for Vermont and subsequently is not assessed in detail are listed immediately below along with the business logic for their exclusion. Applicable planning activities, cost analyses and documents follow the guidelines of the U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS) Handbook 901 (Advanced Planning Document Handbook), August 2007.

1. Baseline: The "as-is" environment

While maintaining Vermont's status quo would be the least costly of all alternatives, the current WIC computing and home delivery benefit delivery system does not meet the following goals and requirements:

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- the Vermont Agency of Human Services goal for being ready for connectivity to Enterprise wide solutions
- the goals outlined in the Vermont WIC EBT Vision document
- the goals outlined in the USDA FNS WIC EBT Vision
- The Child Nutrition Act, S. 3307: Healthy, Hunger-Free Kids Act of 2010, section 352 that requires each state to implement WIC electronic benefit transfer (EBT) systems by October 1, 2020.

2. Offline WIC EBT using outsourced services

Offline WIC EBT using outsourced services has not established a history to support a profile of a mature approach to deliver WIC EBT benefits. Stored Value Systems, Inc. (SVS) formerly provided outsourced WIC EBT services to Nevada and Wyoming; however, SVS has left the EBT market and its solution is no longer being supported. A new vendor, Quality WIC Information Corporation (QWIC), formed by principles involved in the NM and TX offline solution development and implementation, is offering offline-outsources services including processing transactions, vendor support, UPC management card management, and reporting. A second vendor partnership, Solutran/SoliSystems, launched an outsourced offline full service product at the end of 2011. Neither vendor system is operational or proven in any state yet. In addition, both of the offline, outsourced vendors are small start ups heavily dependent on very limited staff resources and extremely dependent on the key personnel involved. Therefore, the potential for vendor failure is a significant risk that cannot be mitigated to our satisfaction. For these reasons, offline WIC EBT using outsourced services is not considered a viable alternative and has not been evaluated further as part of this assessment.

3. On-line, In-House processing

To State and local agency staff using an online system, and to participants, the difference between the outsourced and in-house online systems should be negligible. The greater differences come in the responsibilities of the State to accommodate and assume all functions of the EBT system and in house processing.

The additional requirements to be supported by the State for in-house processing include:

- Security standards for the EBT server facilities and communication lines are very high for online payment systems, where data is passed in real-time through the credit/debit networks. EPI and EFT industry standards and self-certification requirements must be met.
- The infrastructure requirements are very high as online systems require the realtime exchange of data between all authorized retailers' ECR/POS and the WIC EBT host system. This requires top-of-the line hardware, software, and communications capabilities. It also means there is a requirement for real-time processing back-up capabilities and a mirror database.
- Online is mission-critical, requiring 24x7 operations and the cost of providing support can be prohibitive.

The Vermont Agency of Human Services IT Unit and the Vermont Department of Information and Innovation no longer operate on a 24x7 schedule in an effort to reduce the State's infrastructure costs and increase efficiency. Therefore, the State of Vermont does not currently have the resources to provide support for a WIC EBT system on a 24 x7 schedule. To create an IT environment for in house support would substantially diminish Vermont WIC's NSA grant money needed for nutrition education activities. For

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these reasons, On-line WIC EBT using in-house services is not considered a viable alternative and has not been further evaluated as part of this assessment.

Cost data and information applicable to the various WIC EBT alternatives were gathered from the feasibility studies and pilot evaluations previously conducted in a range of States and through interviews with Vermont WIC staff. Reference reports include:

- Final Evaluation Report from the Michigan WIC Program EBT Evaluation Project, September 28, 2007
- WIC EBT Feasibility Study/Cost Benefit Analysis, Washington State Department of Health WIC Program, September 26, 2007
- Washington State Project Key Outcomes and Feedback Report, USDA, FNS, Online WIC EBT Demonstration, March 16, 2006
- New Mexico WIC Program EBT Cost Benefit Analysis, USDA, FNS, May 19, 2006
- Texas WIC EBT National Evaluation Model Cost Sheets, USDA, FNS, 2006

Additional information was obtained concerning these and other deployments, such as the Kentucky on-line system, developed by CDP, Inc., through e-mails, interviews, presentations, and related documentation.

Based on the current WIC Electronic Benefit environment and market conditions, VDH WIC has identified two viable alternatives for Vermont's WIC EBT solution.

6.3.1 Alternative 1: On-line, Outsourced

Currently, there are three major vendors providing full service SNAP and WIC EBT systems. Each of these providers have substantial experience in providing EBT services and have the financial stability that comes with multi-billion dollar IT and financial services firms. The major full service EBT providers include:

ACS (Affiliated Computer Services): ACS provides business process outsourcing and information technology services to industry and government. ACS initially entered EBT providing retailer management services. ACS provides online EBT services for SNAP, WIC and cash programs. ACS also has a time and attendance product for child care and a branded electronic payment card product. After developing their EPPIC™ platform to provide a full service EBT product, ACS began to aggressively pursue the EBT market share. ACS is providing online WIC EBT services in Michigan and is implementing WIC EBT services in Oklahoma. In February 2010, ACS was acquired by the Xerox Corporation, a \$22 billion global enterprise.

Fidelity National Information Services (FIS): With annual revenues of \$3.8 billion (2009), the company is listed on the NYSE. FIS provides payment processing and other services to the banking and financial services industry. In 2007, FIS acquired eFunds® a provider of online EBT and other Electronic Funds Transfer (EFT) services. Based in Phoenix, Arizona, eFunds was one of the first companies to offer EBT services. FIS provides EBT services for SNAP and cash programs and provides EBT gateway processing services. The company also has a time and attendance product for child care and a branded electronic payment card product for government payments. FIS is currently developing a WIC EBT solution which is expected to be available in 2011.

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JP Morgan Chase: With annual revenues of \$100 billon (2009), JP Morgan Chase (JMP) is a global financial services firm listed on the NYSE. JP Morgan Chase provides EBT Services through JP Morgan EFS based in Chicago, IL and is the dominant provider of SNAP and cash EBT services to states (including Vermont). JP Morgan EFS has a branded electronic payment card, child care time and attendance and an on-line WIC product that was implemented in Michigan before the state transitioned to ACS. JP Morgan is also currently providing online EBT processing services for Nevada and the Chickasaw Nation.

A fourth vendor, CDP/WIC Direct, provides online EBT processing services. WIC Direct completed rollout for its first state, Kentucky, in November 2011, after Vermont's analysis was completed. Additional vendors may enter the market before Vermont implements EBT, further strengthening an already robust service environment.

During Wyoming's initial EBT rollout, the state managed a number of contracts related to its EBT system, rather than contracting with a full service provider. If the solution chosen by Vermont is outsourcing, either a full-service contractor or multiple contractors would be needed to provide these services:

- Integration services for WIC EBT
- Retailer management services (stand-beside equipment, help desk)
- Banking services, including the daily drawdown and retailer settlement
- Contract for help desk support
- · Contract for hosting services

6.3.2 Alternative 2: Off-line, In-House

Offline WIC EBT has been deployed statewide by Texas, New Mexico, Wyoming and the Cherokee Nation, with in-house hosting and management. The Texas WIC EBT solution is intrinsically linked to the Texas data system, an older mainframe system, and is therefore not considered a candidate for transfer. The State of New Mexico WIC EBT system has been operational in 110 clinics and at 240 WIC authorized vendors statewide since December 2007. The New Mexico system was transferred to Wyoming and substantially modified and is known in Wyoming as WESS (WIC EBT Settlement Service). WESS was developed to meet all FNS requirements and comply with ANSI standard X9.93. Both New Mexico and Wyoming host the system at state-maintained facilities. The WESS system is available for transfer to other states. All offline WIC EBT transfer systems are hosted in-house at a state facility.

- Except for some web interfaces where card and benefit issuance is recorded in the system, or for entry or deletion of authorized retailers, or for entry or deletion of Universal Product Codes (UPCs), all offline systems transfer data in batches, a transaction type with which states are familiar.
- While states and WIC-authorized retailers prefer file transfers to occur as quickly as
 possible, the communications infrastructure for offline does not have to be quite as robust
 as with online EBT, as stores are sending files via batch over the internet and do not
 require telecommunications links real-time between the WIC EBT Host and the POS at
 the time of purchase transactions.
- Not all security standards are applicable as issuance and purchasing are "one-off" transactions, with the card being the database of record.

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 A 24x7 operation is optimal but not mission critical and states may opt to provide only oncall system support during nights, weekends, and holidays.

6.4 Solutions Analysis

6.4.1 Methodology

This section contains descriptions of each of the alternatives and descriptions of the methodology used to compare and contrast the systems. Because an EBT system requires an EBT-ready WIC MIS, the analysis for EBT necessarily includes aspects of the analysis of alternative MIS as well.

After consultation with USDA FNS representatives and a thorough investigation of possible WIC EBT solutions, Vermont WIC chose three WIC MI systems to evaluate, based upon apparent transfer feasibility, systems reputed functionality, systems reliability and preliminary cost considerations.

- The SPIRIT SAM system, allowed for consideration at this time, was chosen since it has an operational on-line EBT system.
- A second SAM system, MPSC was considered by Vermont WIC, along with its off-line WESS EBT system.
- The Michigan system was chosen for its compatibility with current Vermont state information architecture specifications and proven ability to support online WIC EBT via EPPIC.

Thus, the EBT systems chosen for review by Vermont WIC were:

- SPIRIT online EBT System
- Michigan's EPPIC
- MPSC WESS

The chosen method for systems comparison of functional and non-functional requirements utilized a spreadsheet format with each Vermont functional requirement, its input, output and process recorded by line. Each line was prioritized as A, B, C, or D with "A" representing a "Must" have requirement, "B" representing an "Important" requirement, "C" representing a "Nice to have" requirements and D representing a "Could do without" requirement. Each line was rated as Y=Supported or N=Not Supported to indicate if it fulfilled the requirement. N/A represented a function that was either fulfilled by the companion EBT system, or due to architecture of the system, was not needed. Each "A" priority which a system did not have represents an enhancement, E = Enhancement, and the total of the "A" enhancements equals a minimum number of developed enhancements necessary to bring the system into the Vermont environment. While the total score may indicate that a system is preferred, it should not be the only determinate for choosing a software or hardware system.

The Vermont WIC EBT System Solutions Evaluation Guide was created to capture all categories of information required to prepare a judgment on the most appropriate software solution for WIC EBT in Vermont. There are two Categories of Analysis: (1) Software Package Attributes and (2) Software Implementation Attributes.

Each system under consideration was studied and information gathered using documentation reviews, and by testing the SPIRIT Playground and MI-WIC online demonstration system. Additionally, industry experts presented system demonstrations in Vermont and questions were posed to EBT operational WIC programs and EBT vendors. The resulting spreadsheet was then

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analyzed to rate comparative performance of each product for each priority; the results of that analysis were compiled into a table format. See Appendix G

6.4.2 Comparison

Using the methodology described above, each system was analyzed in detail for WIC business process functionality and for non-functional requirements while adhering to the following criteria:

- Alternatives must allow for the implementation of a modern WIC clinic system, state wide, within a reasonable time frame
- Alternatives must include the capability of operation in all administrative, clinic and local agency environments
- Alternatives must be rated against the Vermont Functional Requirements
- Alternatives must provide user-friendly WIC clinic and State level operations and management support functionality
- Alternatives must allow Vermont IT development, implementation, and operations principles and standards to be met
- Alternatives must maintain the quality and capacity of the Vermont WIC Program
- Alternatives' development and operational cost must be in alignment with the administrative funds anticipated to be available to the program
- Alternatives should allow relative ease of system maintenance as well as enhancement development and delivery
- Alternatives' technology must have been demonstrated to be capable of adequate performance in the variety of WIC service delivery environments that exist in Vermont's clinics.

A scoring matrix was used to define acceptable thresholds of meeting Vermont's desired functionality as stated in the Vermont FReD. It is displayed below as Table 1.

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Table 1: Thresholds of Acceptable Functionality		
Definition Decision		
91-100 % Satisfactory	Preferred	
81-90% Satisfactory Acceptable		
71-80% Satisfactory Acceptable		
61-70% Satisfactory	Unacceptable	
51-60% Satisfactory	Unacceptable	
41-60% Satisfactory	Unacceptable	
31-60% Satisfactory	Unacceptable	
21-60% Satisfactory	Unacceptable	
11-60% Satisfactory	0% Satisfactory Unacceptable	
01-60% Satisfactory Unacceptable		

6.4.3 Evaluation

Operational Functional Requirements

The Vermont Functional Requirements define system tasks, their inputs, processes and outputs, required to fulfill WIC program requirements, including those necessary for the MIS to be EBT-ready. At the Vermont local service delivery level, certain features are considered critical in a current generation WIC system, including the use of relational databases and a graphical user interface (GUI), such as Windows, and expanded functionality. The other features of these systems include:

- Establishment, maintenance, and access to participant records at each service delivery site
- Data capture and editing participant data locally
- Decision support and error correction tools
- On-demand production of WIC EBT cards at Local Agencies and clinic sites with the capacity to issue up to three months worth of food benefits to a participant at one visit
- Electronic transmission of local site data to a central database
- Access to current information about the number of participants applying, enrolled, certified, and issued EBT benefits
- Support for case management functions, including: appointment scheduling; monitoring
 participant health, behavioral and dietary status; detecting potential dual participation;
 transferring participant records between Local Agencies; and generating correspondence
 and reminders to participants. Improved Ad hoc reporting with local report generation
 capability

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At the State level, additional features are considered critical for Program administration. These include:

- Provision of timely and accurate statewide data on participation, food obligations, and food expenditures
- Routine and Ad hoc inquiry into the various central databases
- Improved caseload management tools
- Improved vendor management tools
- Improved financial management tools
- Improved nutrition and health surveillance information and management tools
- EBT Functionality

The functional requirement comparison showed similarity among all three systems, with dissimilar system designs resulting in divergence from Vermont stated processes in several instances. Table 2 illustrates the supported Vermont functionality per system. Note that the total count of requirements difference represents dissimilar EBT system design.

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TABLE 2: Scoring o		0
SPIRIT EBT		
Y = Supported		
N = Not Supported		
F = Future Release		
E = Enhancement		
N/A = Not Applicable		

of Systems by VT Functional Requirements		
WESS/CRIS/Services		EPPIC EE
EBT		LFFIG LL
Y = Supported		Y = Support
N = Not Supported		N = Not Suppo
F = Future Release		F = Future Rel
E = Enhancement		E = Enhancen
N/A = Not Applicable		N/A = Not Appli

EPPIC EBT
Y = Supported
N = Not Supported
F = Future Release
E = Enhancement
N/A = Not Applicable

Tally	Count	%
Υ	251	97.7%
N	2	0.8%
F	0	0.0%
Е	4	1.6%
Total	257	100%

Tally	Count	%
Υ	228	95.4%
Ν	6	2.5%
F	0	0.0%
Е	5	2.1%
Total	239	100.0%

Tally	Count	%
Υ	237	96.0%
Ν	4	1.6%
F	0	0.0%
Е	6	2.4%
Total	247	100.0%

- SPIRIT EBT meets the threshold of acceptability at 97.7% of Vermont's desired EBT functionality and at 251 of desired functions fulfilled was the top scorer. At only four SPIRIT had the fewest number of enhancements required.
- EPPIC EBT meets the threshold of acceptability at 96.0% of Vermont's desired EBT functionality and at 237 of desired functions fulfilled was the second highest scorer. EPPIC required the most enhancements at six.
- WESS/CRIS/Services EBT meets the threshold of acceptability at 95.4% of Vermont's desired EBT functionality and at 220 of desired functions fulfilled was the lowest scorer. This offline system had the most number of requirements not met and requires five enhancements to meet Vermont desired requirements.

Overall SPIRIT EBT and EPPIC EBT contained more Vermont specified requirements than WESS/CRIS/Services EBT. Consideration of Vermont's EBT Functional requirements establishes an online EBT system as a superior EBT type for Vermont. As described below, factors other than functional requirements, including non-functional requirements play an important role in the final systems analysis decision.

Technical Non-Functional Requirements

Non-Functional Requirements describe attributes, qualities and conditions, which the proposed system must have, comply with or are within operating parameters, due to the Vermont computing environment. The system requirements for this project will ultimately be determined reciprocally by the solution chosen and the capabilities of current VDH, AHS and DII systems.

The Vermont WIC program desires a paperless MIS and EBT system, from data creation to data storage, with the capability to exchange data with other AHS programs, Vermont State systems, the CDC and FNS.

Considered and documented in the comparison spreadsheet were the following non-functional topics: Security, Usability, Configurability, Scalability, Systems Interfaces, Compatibility, Legal and Regulatory Compliance and Communications. Table 3 displays the results.

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Table 3: Scoring
SPIRIT EBT
Y = Supported
N = Not Supported
F = Future Release
E = Enhancement
N/A = Not Applicable

of S	of Systems on VT Non-Functional Requirements		
	WESS/CRIS/Services EBT		EPPIC EBT
	Y = Supported		Y = Supported
	N = Not Supported		N = Not Supported
	F = Future Release		F = Future Release
	E = Enhancement		E = Enhancement
	N/A = Not Applicable		N/A = Not Applicable
="			

•
EPPIC EBT
Y = Supported
N = Not Supported
F = Future Release
E = Enhancement
N/A = Not Applicable

Tally	Count	
Υ	45	86.5%
N	5	9.6%
F	0	0.0%
Е	2	3.8%
Total	52	100.0%

Tally	Count	
Υ	40	72.7%
N	13	23.6%
F	0	0.0%
E	2	3.6%
Total	55	100.0%

Tally	Count	
Υ	47	79.7%
N	6	10.2%
F	0	0.0%
Е	6	10.2%
Total	59	100.0%

- SPIRIT EBT scored the highest with 86.5% of non-functional requirements met and only 2 required enhancements. It lacked "A" priority level functionality in the Protection of Record Level Participant data
- EPPIC EBT scored second with 79.7% of non-functional requirements met and six required enhancements. The system lacked "A" priority level functionality in Vermont's desire to service remote locations, being that it is a 100% web-based. Vendor facilitated solution to connectivity for Michigan was to augment the portable clinic laptops with wireless access cards. The system lacked in Protection of Record Level Participant data as did all three systems.
- WESS/CRIS/Services EBT scored the lowest with 72.7% of non-functional requirements met and only 2 required enhancements. It lacked "A" priority level functionality in Protection of Record Level Participant data, usability and system design flexibility.

System Type Decision

Table 4: Combined Requirement Scoring		
SPIRIT EBT		WESS/CRIS/Services EBT
Y = Supported		Y = Supported
N = Not Supported		N = Not Supported
F = Future Release		F = Future Release
E = Enhancement		E = Enhancement
N/A = Not Applicable		N/A = Not Applicable

Tally

Ν F Ε Total

			The state of the s			
	Count	%		Tally	Count	%
	296	95.8%		Υ	268	91.2%
	7	2.3%		N	19	6.5%
	0	0.0%		F	0	0.0%
	6	1.9%		Е	7	2.4%
	309	100.0%		Total	294	100.0%

by	/ EBT System
	EPPIC EBT
	Y = Supported
	N = Not Supported
	F = Future Release
	E = Enhancement
	N/A = Not Applicable

Tally	Count	%
Υ	284	92.8%
N	10	3.3%
F	0	0.0%
E	12	3.9%
Total	306	100.0%

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Observing the total percentages for functional and non-functional requirements in Table 4 above indicates a preference for the SPIRIT EBT system with EPPIC EBT a close second. Both are online EBT type systems.

In addition to scoring systems on Functional and Non-Functional Requirements, systems were reviewed on Financial, Time Constraints, and Systems Integration aspects. The results of this comprehensive set of comparisons are displayed in Table 5. Systems were comparatively scored from 1 (lowest/worst) to 3 (highest/best) The resulting scores indicate a clear preference for an online EBT system.

Table 5: Comprehensive Comparison of Systems			
	SPIRIT EBT	WESS/CRIS/Services EBT	EPPIC EBT
Technical			
Non- Functional Requirements	3	1	2
Operational			
Functional Requirements	3	1	2
Financial			
Budget			
- development (ER)	3	1	2
- Implementation costs	3	1	3
- on-going costs	2	1	3
Maintenance & Operations	2	2	2
Time			
Development of ER	3	1	2
On going State Staff Time	3	1	3
Installation State Staff Time (Testing & Installation at each installation)	2	2	2
EBT Timeline	3	1	3
Systems Integration	2	2	3
Enhancements Required	2	2	1
Difficulty of Enhancements	2	3	2
Totals	33	20	30

6.4.4 Summary

The Vermont WIC EBT planning team has conducted an assessment to determine the WIC EBT alternative that best meets the specific needs of WIC Services, its participants, and its retailer stakeholders. Vermont WIC's analysis of the possible solution methods was made possible by analyzing WIC EBT systems in production. Comparing the three chosen systems to Vermont's functional and non-functional requirements clearly indicated that the two systems, which were on-line and out-sourced both, met more of Vermont's requirements than did the off-line in-house option. Additionally, the Vermont Agency of Human Services IT Unit and the Vermont Department of Information and Innovation no longer operate on a 24x7 schedule in an effort to reduce the State's infrastructure costs and increase efficiency. Therefore, the State of Vermont does not currently have the resources to provide support for an in house WIC EBT system on a 24 x7 schedule. To create an IT environment for in house support would substantially diminish Vermont WIC's NSA grant money needed for nutrition education activities. For these reasons, Off-line WIC EBT using in-house services was eliminated as a viable alternative.

The on-line outsourced type of EBT is chosen as Vermont's preferable EBT type. By outsourcing processing, the State will manage one contract and use the services of an EBT

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service provider with experience in processing, retailer management, and client and retailer help desk and support.

7. Proposed System

The proposed solution is to contract for an outsourced on-line system to replace Vermont's home delivery method of benefit delivery. It is assumed that contracted support will be used for the implementation of an on-line system with out-sourced hosting. The system will use the MPSC MIS interface to achieve data exchange and will use the FNS suggested Universal Interface document to achieve compatibility with the MPSC MIS system. Although the MPSC system is currently (12/2011) interfaced with the off-line in house hosted type of EBT system, both the Mountain Plains Consortium and CIBER state that the MPSC MIS will be compatible with the online out sourced hosted type of EBT system upon release.

Upon release of the MPSC system, the Vermont EBT contractor will work with Vermont's MIS Implementation contractor to plan for the simultaneous release of MPSC MIS with on-line benefit delivery, since Vermont will not implement FIs as a new process for interim use during MIS Implementation.

7.1 Impacts

7.1.1 Hardware

Because the State of Vermont Agency of Human Services has their District Office equipment on a lifecycle replacement program, the new WIC MIS and EBT systems will not require the direct purchase of PCs, laptop computers, or printers for clinics. The WIC program and the State level Project Manager will submit their hardware requirements to the State to assure WIC requirements are taken into consideration. To make use of all the required functionality in the new system and support the State's desire to operate paperless clinics, the State will be required to purchase scanners and digital signature pads. EBT card reader/writers will be needed to support the EBT system

The WIC Program Project Manager and State Level IT Project Manager will spearhead the purchase any required equipment according to specifications required by the new system and in accordance with Vermont State hardware equipment procurement policy.

Local Agency Level

Vermont WIC operates clinics from within the Office of Local Health at twelve State of Vermont District Offices. The current terminals within WIC clinics are in the process of being replaced by either desktops or laptops. The installation of either will work with the MPSC MIS system and it is assumed that either would be sufficient for the EBT system. Each district office will need a portable EBT card reader/writer for remote clinics.

State Agency Level

Vermont WIC administrative staff personnel currently have desktop Dell PC computers, which are robust enough to support the EBT system without additional costs. The WIC administrative office will require an EBT card reader/writer.

7.1.2 Software

It is not anticipated that any additions or modifications are needed for existing applications and support software.

The centralized browser-based design of the current EBT systems requires no specialized software to be installed on the hardware in clinics or at the State Agency. The operating systems

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currently in use are compatible with the new system, which lessens the chance of software conflicts, and all clinics use the same version of web browser, currently Internet Explorer 8.

This project does not include developing any office automation functions, although some state office components of the system may link to office automation software, such as Microsoft Word, for the generation of letters or reports. The equipment at Vermont clinics and the WIC Program Office already has and uses such state supplied software. It is not anticipated that purchase of any other office automation software will be required for the new system.

7.1.3 Organization

The new EBT system will be transferred, modified, implemented and operated by an outside contractor. Additional VDH WIC project staff required specifically for the project will be hired on a contract basis. Accordingly, VDH WIC does not anticipate any change in existing organizational, personnel, and skill requirements as a result of this project, although flexibility of staff to accomplish project tasks will be required.

7.1.4 Resource

Resources for the MIS and EBT projects will be shared between projects with the same state staff performing similar roles for each project. Based on an assessment of WIC system transfer and design projects in other states, and current Program resources, Vermont WIC has estimated the needs for project personnel to implement a new system as follows:

- 1. State IT Project Manager, to be assigned by DII
- 2. Technical Lead and Coordinator Current VDH IT staff
- 3. WIC Program Project Manager Current Project Manager
- 4. DII development staff Current WIC DII staff
- 5. Project Champion and SME Current WIC/MCH director
- 6. Contractor Staffing sufficient to meet the RFP requirements

Database administration and Network support are already provided by AHS IT and DII and will be scheduled into their workflow. These IT units have been advised of the project and are assisting in project planning. Additional Resources required will determined reciprocally by the AHS IT and DII workflows and the selected contractors.

7.1.5 Program

There are no anticipated conflicts or need to request a waiver from program requirements.

7.1.6 Operations

The Vermont WIC procedure manual will need to be updated to reflect the new EBT business process, its terminology and process flows and to describe new requirements for providing services. The users will also need to understand the new processes and their additional responsibilities and procedures.

The legacy system is maintained in house and governed by State of Vermont and WIC policy. No changes to data retention are anticipated. Legacy benefit delivery operations will cease at statewide rollout when the last clinic site is converted. Current DII staff and the MIS Implementation contractor will convert the participant database in the legacy system for the local agency pilot site to the correct format and load it on the DII server for the new MIS system. This conversion of the pilot clinic's participant database will occur immediately prior to implementation

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of the pilot site, as the agency will not be allowed to make any other changes to legacy system records once the conversion has been accomplished. The EBT system will be the benefit delivery system for the MIS pilot and rollout.

Legacy benefit delivery will continue in non-pilot areas until EBT is rolled out.

7.1.7 Site/Facility

The implementation of the EBT system will require some attention concerning facility planning but no large impacts are anticipated. The EBT system will not require building modifications.

The State of Vermont Agency of Human Services currently operates a system of 12 district offices, which house WIC clinics that include network connectivity to the State of Vermont network, which will support the MIS and EBT requirement of a strong Internet connection.

7.1.8 Fiscal

The USDA is generally the single source of funding for WIC system modernization projects. When federal WIC dollars are used, the appropriate federal laws and regulations apply. At the current stage of planning, the operating assumption is that funding for the EBT Implementation project will be requested from USDA-FNS.

Although the specific procurement and operational approach is not known, similar EBT Implementation projects include contracting for the following services to support ongoing operations:

- Provide training / knowledge transfer for Vermont technical and operations staff
- Provide second level application help desk support (implementation and ongoing basis)
- Provide system maintenance (technical support, issue analysis, determination and resolution) on an ongoing basis

7.2 Selection Justification

The selection of an online, out-sourced EBT system will meet the programmatic, functional and non-functional requirements of the State of Vermont WIC program and its participants. Additionally, online outsourced solutions tend to be full service solutions with the processor providing card production and issuance services, WIC vendor (retailer) management and integration support, deployment and maintenance of stand beside POS solutions, and 24 X 7 customer services and help desk support. This division of labor and services will great aid the Vermont goal of implementing a new MIS and EBT at the same time.

For the Vermont WIC Program the EBT system will provide increased processing capacity at the clinic level due to its centralized structure, will support the State's desire for improved data integrity, thus allowing staff resources for focus more attention on addressing the nutritional needs of clients. It will ensure that participant receives prescribed foods, provide data on type and amount of foods purchased.

The system will enable secure transactions. The on-line type of EBT system will streamline clinic operations by eliminating participant visits to clinic for card replacements and food package changes, which will increase time for nutrition education.

For the Vermont WIC participant the on-line type of EBT system will allow for card replacement without a waiting period and without having to travel to a clinic. It will ensure that a participant is

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able to purchase the full, prescribed WIC food package at the participant's discretion within the valid period of issuance, without having a waiting period if a card is lost or stolen.

8. Proposed Schedule

8.1 Project Phases

Phase	High Level Task
Planning	Procurement Documentation and Contracting
Design	Project Initiation
	Final Work plan
	System Requirements Document
	Planning Documents
	Gap Analysis
Development	Business Process Review/ Policy Adjustment
	System Modification, Technical Testing, and Revisions
	Site Readiness Checklists
	Equipment Procurement (Pilot)
	Operational Planning, Documentation, and Training Materials
	Central Operations Preparation
	User Acceptance Testing
Pilot Operations	Training (Central Office- DII)
	Training (Pilot Clinics and State Admin)
	System Pilot Test- 3 Month
	Pilot Evaluation and System Modification/ Retesting
Statewide	Equipment Procurement (Statewide)
Rollout	Statewide Training
	System Rollout
	System Documentation
Maintenance	Initial 1 Year Warranty
	Extended Warranties

8.2 Schedule Summary⁴

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Key Milestones & Deliverables	Responsible Parties	Time period	VT Time EBT
IAPD Approval	FNS, AHS, DII	6 months	9/30/2012
EBT Implementation Planning		12 months	start 9/31/2012
RFP Release	FNS, WIC, AHS,	12months	3/31/2013

⁴ This summarizes the implementation schedule for EBT only, as this document describes EBT Feasibility and Alternatives Analysis. Because the EBT system and MIS will be implemented simultaneously, a combined schedule will be provided in the IAPD for MIS and EBT.

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(Writing, approvals, contract)	DII, BGS		
Vendor Proposals	BGS, WIC	2 months	3/31/2013
Contract	BGS, VDH, WIC, AHS, DII, AG	4 months	5/31/2013
EBT Design		4 months	Start 9/31/2013
Project Initiation	Impl. Contractors	one day	1/31/2014
Final Work plan	WIC, DII, Impl. Contractors	2 months	
System Requirements Document	Impl. Contractors	4 months	
Planning Documents	WIC, DII Impl. Contractors	4 months	
Gap Analysis	WIC	2 month	
EBT Development		12 months	Start 1/31/2014
Business Process Review/ Policy Adjustment	WIC	4 months	1/31/2015
System Modification, Technical Testing, and Revisions	Impl. Contractors	4 months	
Site Readiness Checklists	WIC, Impl. Contractors	1 month	
Equipment Procurement (Pilot)	WIC, AHS, Impl. Contractors	2 months	
Operational Planning, Documentation, and Training Materials	WIC, Impl. Contractors	6 months	
Central Operations Preparation	WIC, DII, Impl. Contractors	3 months	
User Acceptance Testing	WIC, QA Contractor	3 months	
EBT Pilot Operations		4 months	Start 1/31/2015
Training (Central Office- IT)	WIC, Impl. Contractors	2 weeks	5/31/2015
Training (Pilot Clinic and State)	WIC, Impl. Contractors	2 weeks	
System Pilot Test- 3 Month	WIC, Impl. & QA Contractors	3 months	
Pilot Evaluation and System Modification/ Retesting	WIC, Impl. & QA Contractors	1 month	
EBT Statewide Rollout		6 months	Start 5/31/2015
Equipment Procurement (Statewide)	WIC, AHS, Impl. Contractors	2 months	11/31/2015
Statewide Training	WIC, Impl. Contractors	2 weeks	
System Rollout	WIC, DII, AHS, Impl. Contractors	3 months	
System Documentation	Impl. Contractors	6 months	
Total EBT Project			36 months

8.3 Project Deliverables

As part of the EBT implementation, a set of work product documents are required. Identified work products that are typical of an EBT project will be considered by the Vermont WIC project. Certain documents have been previously been drafted by the Vermont WIC planning team, while others are yet to be created. Depending on the contracting options selected, the State or the contractor may develop the work products. Documentation requirements have been identified for the distinct phases of the project.

Planning Phase

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- Functional Requirements Document: This document defines the functional requirements expected by Vermont WIC to be incorporated into the system. It is a more detailed version of the USDA FNS FReD, which incorporates Vermont's specific needs. Although the Vermont FReD is in complete form, it will not be considered final until all requirements have been vetted with the contractor.
- Implementation Advance Planning Document (IAPD): This document, developed for submission to FNS, addresses systems analysis, design, requirements definition, development, integration, testing and deployment of the system. It includes an anticipated budget and expected federal financial participation. This document and its respective budget must be approved by FNS before the project can proceed. The content required to be submitted in the IAPD is dependent on the type of system (transfer, SAM, build) proposed.
- Request for Proposals (RFP): Vermont WIC project team will develop the procurement documentation used to hire a qualified contractor or contractors for transfer/ implementation and quality assurance services under the guidance of Vermont's RFP SME within the DII. Development of the RFP(s) will not be contracted.
- Evaluation Methodology: As part of the procurement process, a process for evaluating bidders will be defined and documented along with the creation of the evaluation tools used for scoring contractor proposals.
- Project Management Plan: This document will identify all of the information associated with the project management processes, the tools used, and how the project is executed, monitored/controlled, and closed. The Project Management Plan also contains plans for managing the following areas of the project:
 - · Project integration management
 - Scope management
 - Time management
 - Cost management
 - Quality management
 - · Human resource management
 - Communication management
 - Risk management
 - Procurement management
 - Change management
- Project Work Plan: The work plan is ultimately part of the Project Management Plan, but is important enough to stand as a separate document. The work plan lays out the project schedule and identifies dependencies, milestones, and resources. It should be updated throughout the project as the project progresses.

Design Phase

The following list of documentation is expected of Vermont for a SAM transfer project. The list may be adjusted based on Vermont's final requirements.

• **Functional Design Document:** provides general descriptions of the system design components required to address the functional requirements of the system.

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- Detailed Design Document: provides detailed descriptions of the total system configuration including, hardware, functionality, data elements, file layouts, process flows, interfaces, reporting, transaction processing, settlement and reconciliation, customer service, and security.
- **Test Plan and Test Scripts:** addresses all major system components described in the Detailed Design Document and is used for User Acceptance Testing.
- Gap Analysis: Through design confirmation sessions, the State determines any
 additional required modifications to the transfer system or documents changes to policy
 that will be required.
- System Security Plan: details the security provisions established within the system including the use of user access roles and levels.
- System Disaster Recovery (Back up)/ Continuity of Operations Plan: details the approach to disaster recovery and how operations can continue at the State and local levels in the event of a disaster or other interruption in the standard operating processes.
- System Implementation Plan: details activities, steps and procedures involved in rolling out the system (pilot and statewide).
- Hardware Plan
- Helpdesk Plan
- Telecommunications Plan
- Training Plan: addresses how all stakeholders will be trained and includes sampletraining materials.
- Data Conversion Plan: addresses appropriate data mapping artifacts.
- Business Process Review/ Policy Adjustment: addresses changes to the policies and procedures, as well as business practices, in the State.
- **Site Readiness Checklists:** To prepare for implementation, site readiness checklists provide a vehicle to ensure all of the sites have all of the required equipment, infrastructure, capacity, and training required to operate the system.
- **System Documentation:** Any additional required documentation beyond the design documents already addressed.

Implementation & Operation Phases

- Pilot Evaluation: provides an assessment of the pilot to provide a recommendation as to whether the State should move forward with statewide implementation or make further adjustments before proceeding.
- **Training Materials:** a variety of training materials will be needed for all stakeholder groups.
- **Manuals:** documentation of various aspects of the system will be needed by users as part of implementation and during system operations
- Policy and Procedures Manual
- Online or System Help Manual
- Reports Manual

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10. Appendix A: Acronyms

TERM	DEFINITION
ACH	Automated Clearing House
ACS	Affiliated Computer Systems
AHS	Agency of Human Services
ANSI	American National Standards Institute
AP	A woman having one or more embryos or fetuses in utero.
APD	Advance Planning Document
APL	Approved Product List; a list of the State Agency's WIC authorized products
AVR	Automated Voice Response
BF	A woman who is breastfeeding or providing breast milk to her infant on average at least
	one time per day, up to the infant's first birthday.
BIN	Bank Identification Number
BPR	Business Process Re-engineering
С	Child - a person over one year of age who has not reached his/her fifth birthday.
CAD	Card acceptance device
CDP	Custom Data Processing
CIS	Children's Integrated Services
CPCM	Cost per Case Month
CPH	Community Public Health
CVV or CVB	Cash Value Voucher or Cash Value Benefit; a dollar amount benefit for the purchase of
	fruits and vegetables part of the new food package rule
DFO	Director of Field Operations
DII	Department of Information and Innovation, State of Vermont
DOB	Date of Birth
EAN	European Article Numbering
EAR	Emergency Acquisition Request
EBA	Electronic Benefit Account
EBT	Electronic Benefits Transfer. The electronic transfer of government benefits to individuals
	through the use of card technology and point-of-sale terminals.
EBT ID	Electronic Benefit Transfer Identification Number. The 4-character identifier assigned to
	each retail store to identify it to the electronic settlement server. The EBT ID is used in
	the composition of the electronic file name submitted to the state and in the FTP
	directory structure.
ECR	Electronic Cash Register
FI	Food Instrument
FIS	Fidelity National Information Services, Inc.

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FNS	Food Nutrition Service of the USDA
FRED	Functional Requirements Document
FRED-E	Functional Requirements Document with EBT
FTP	File Transfer Protocol. This protocol allows for the transfer of electronic files between a
	client and a remote server or between any two-computer systems using standard
	communication lines such as telephone.
GSO	Global Standards Organization
GTI	Global Trade Item Number
HCL	Hot Card List
Hct	The hematocrit is the proportion of blood volume that is occupied by red blood cells. It is
1100	normally about 48% for men and 38% for women. It is considered an integral part of a
	person's complete blood count results, along with hemoglobin concentration, white blood
	cell count, and platelet count.
Hgb	Hemoglobin is the iron-containing oxygen-transport metalloprotein in the red blood cells
1.9.0	of vertebrates.
HNQ	Health and Nutrition Questionnaire Forms
HOH	Head of Household
1	Infant - a person under one year of age.
IAPD	Implementation Advance Planning Document
IAPDU	Implementation Advance Planning Document Update
ICD	Interface Control Document
IFPS	International Federation of Produce Standards
INCP	Individual Nutrition Care Plan
IP.	Internet Protocol. This is a standardized protocol used to transfer data from one node to
	another on a network.
IRFP	Implementation Request for Proposal
IS	Information Systems
IVR	Interactive Voice Response is an interactive technology that allows a computer to detect
	voice and keypad inputs
JPM	JP Morgan Chase
MICR	Magnetic Ink Character Recognition
MIS	Management Information System
MPCOS	Multi-application Payment Chip Operating System
MPSC	Mountain Plains States Consortium, a multi-state group developing a State Agency
	Model WIC MIS. Term also used as name for the consortium's SAM MIS.
NTE	Not to Exceed Amount. The maximum allowed charge to WIC program for a particular
	food item.
NUPC	National UPC (Database),A system that maintains UPC(s) at a national level
OLH	Office of Local Health
Over 50%	Signifies whether or not the volume of WIC sales is over 50% of the total sales for the
	retailer.
PAN	Primary Account Number
PAPD	Planning Advance Planning Document
PC	Personal Computer
PIN	Personal Identification Number
PLU	Price Look Up Code
PLU	Price Look-Up
POS	Point-of-Sale (POS) refers to both a checkout counter in a retail location, the location
	where a transaction occurs and the in-lane device that processes the transaction
PP	A Postpartum Woman non-breastfeeding woman, up to six months from the termination
	of her pregnancy. The end of a pregnancy is the date the pregnancy terminates (date of
	delivery, abortion, fetal death or miscarriage).
RFO	Request For Offer

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RFP	Request For Proposal
RFU	Reserved for Future use
S.M.A.R.T.	Specific Measurable Attainable Realistic Time-Based The S.M.A.R.T. acronym defines
	five characteristics needed to develop a well-designed action plan
SAM	State Agency Model
SFY	State Fiscal Year
SME	Subject Matter Expert
SNAP	Special Nutrition Assistance Program, formerly known as Food Stamps
SOR	System of Record
SOW	Statement of Work
SSO	Single Sign On
TANF	Temporary Assistance for Needy Families
TPP	Third Party Processors
TRSM	Tamper Resistant Security Module
UOM	Unit of Measure
UI	User Interface
UPC	Universal Product Code
USDA	United States Department of Agriculture
VDH	Vermont Department of Health
VHIEN	Vermont Health Information Exchange Network
VHITP	Vermont Health Information Technology Plan
VMN	Variable Measure Number
WESS	WIC EBT Settlement Service, the offline EBT system developed for Wyoming WIC, that
	will interface with the MPSC WIC MIS.
WIC	Women, Infants and Children
X9.93	WIC EBT Transaction Processing Standard

11. Appendix B: Glossary



12. Appendix C: Vermont WIC EBT Vision Document



13. Appendix D: Vermont MIS/EBT Functional Requirements



14. Appendix E: Vermont Gap Analysis Summary



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15. Appendix F: Vermont Gap Analysis



16. Appendix G: Systems Comparison Spreadsheet



17. Appendix H: Retail Vendor Technical and Business Capacity



18. Appendix I: Vermont Vendor Survey of EBT Readiness



19. Appendix J: Detailed Cost Analysis

